



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,857	06/28/2006	Dai Oguro	396.46314X00	7881
20457	7590	02/01/2010	EXAMINER	
ANTONELLI, TERRY, STOUT & KRAUS, LLP			CLARK, GREGORY D	
1300 NORTH SEVENTEENTH STREET				
SUITE 1800			ART UNIT	PAPER NUMBER
ARLINGTON, VA 22209-3873			1794	
			MAIL DATE	DELIVERY MODE
			02/01/2010	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Advisory Action Before the Filing of an Appeal Brief</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/584,857	OGURO, DAI
	<b>Examiner</b>	<b>Art Unit</b>
	GREGORY CLARK	1794

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 19 January 2010 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1.  The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a)  The period for reply expires 3 months from the mailing date of the final rejection.
- b)  The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2.  The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3.  The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because

- (a)  They raise new issues that would require further consideration and/or search (see NOTE below);
- (b)  They raise the issue of new matter (see NOTE below);
- (c)  They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d)  They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4.  The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5.  Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.

6.  Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7.  For purposes of appeal, the proposed amendment(s): a)  will not be entered, or b)  will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_.

Claim(s) objected to: \_\_\_\_\_.

Claim(s) rejected: 8-26.

Claim(s) withdrawn from consideration: \_\_\_\_\_.

#### AFFIDAVIT OR OTHER EVIDENCE

8.  The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9.  The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10.  The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11.  The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Attachment Below.

12.  Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_

13.  Other: \_\_\_\_\_.

/D. Lawrence Tarazano/  
Supervisory Patent Examiner, Art Unit 1794

Continuation from 11:

Fan discloses that related triphenylene derivatives were known to engage in hydrogen bonding. Garner discloses that the formation of an organic gel involves attractions between molecules (i.e., hydrogen bonding) that facilitate the formation of an extensive three-dimensional network that traps the solvent between "strands" of the network. Materials which have multiple polar functionalities (i.e. urea groups in formula 4) allow for network formation by hydrogen bonding. Such triphenylene derivatives as disclosed by Fan that read on applicants' claimed structure would be readily recognized as a candidate for an organic gel agent.

It is well understood in the art that the properties of a given fiber can be enhanced or reinforcement by the addition of a gel as disclosed by Merrill.

The diameter of the fiber would be a matter of selecting the appropriate size for the intended use based on routine experimentation. Producing an organic gel after heating a solution containing a triphenylene derivative is a process limitation; however, applicant has claimed an organic gel and an organic fiber not the process to make either one.

The selection of a solvent would have been based on testing a host of solvents to determine which solvents have a suitable interaction with the gelling agent to facilitate the formation of an extensive three-dimensional network that traps the solvent dispersion to form a gel based on the teaching of Garner. This is viewed as routine experimentation where some solvents would perform better than others. A skilled artisan would not be limited in the solvent options which would have included those claimed by applicant.

The teaching of Ruelle was merely added to show that the hydrocarbon character of the R group with respect to chain length is related to how polar and non-polar groups affect solubility. The ultimate solubility or dispersibility of the triphenylene derivative in a solvent is analogous to how polar and non-polar materials interact. Alkyl groups (R) in the triphenylene derivative that were longer would increase the hydrocarbon (non-polar) character of the molecule making it more non-polar rendering it more soluble in non-polar solvents. Likewise, alkyl groups (R) in the triphenylene derivative that were shorter would decrease the hydrocarbon (non-polar) character of the molecule making it more polar rendering it more soluble in polar solvent. While the applicants claim a particular polar solvent, there does not appear to be anything special or non-obvious regarding the selection of this particular solvent.

It would have been obvious to have selected the appropriate solvent based on routine experimentation with respect to the polar or non-polar nature of the solvent in comparison to the polar or non-polar nature of the triphenylene derivative.

The examiner maintains that such triphenylene derivatives would have been viewed as suitable candidates for a organic gelling agent and the solvent used to facilitate gel formation as well as the size of the resulting gel diameter and a fiber reinforced by a gel would have determine by experimentation.